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Agricultural Memorandum No 693

Agro-climatic area averages - summer potential transpiration

L. P. Smith

The 1941-1970 averages for the old county areas were evaluated, allowance being made for the change in computation from the style of Tech Bull No 4 to that of Tech Bull No 16.

These were reduced to sea level and mapped; areal values for the new agro-climate areas were then read off and re-adjusted to the appropriate average heights.

The appendix gives details of the April-September P.T. averages, the regression coefficient on sunshine, the sunshine averages (in agreement with Ag Mem 692), and the average heights of each of the new areas.

These basic data will be used for estimated current P.T. values for the areas in 1975.

Any comments or suggestions on this paper should be referred to the author.

Meteorological Office
Bracknell
January 1975

Summer Potential Transpiration Averages 1941-1970

P.T. in inches
Sun in hours/day
Height in feet

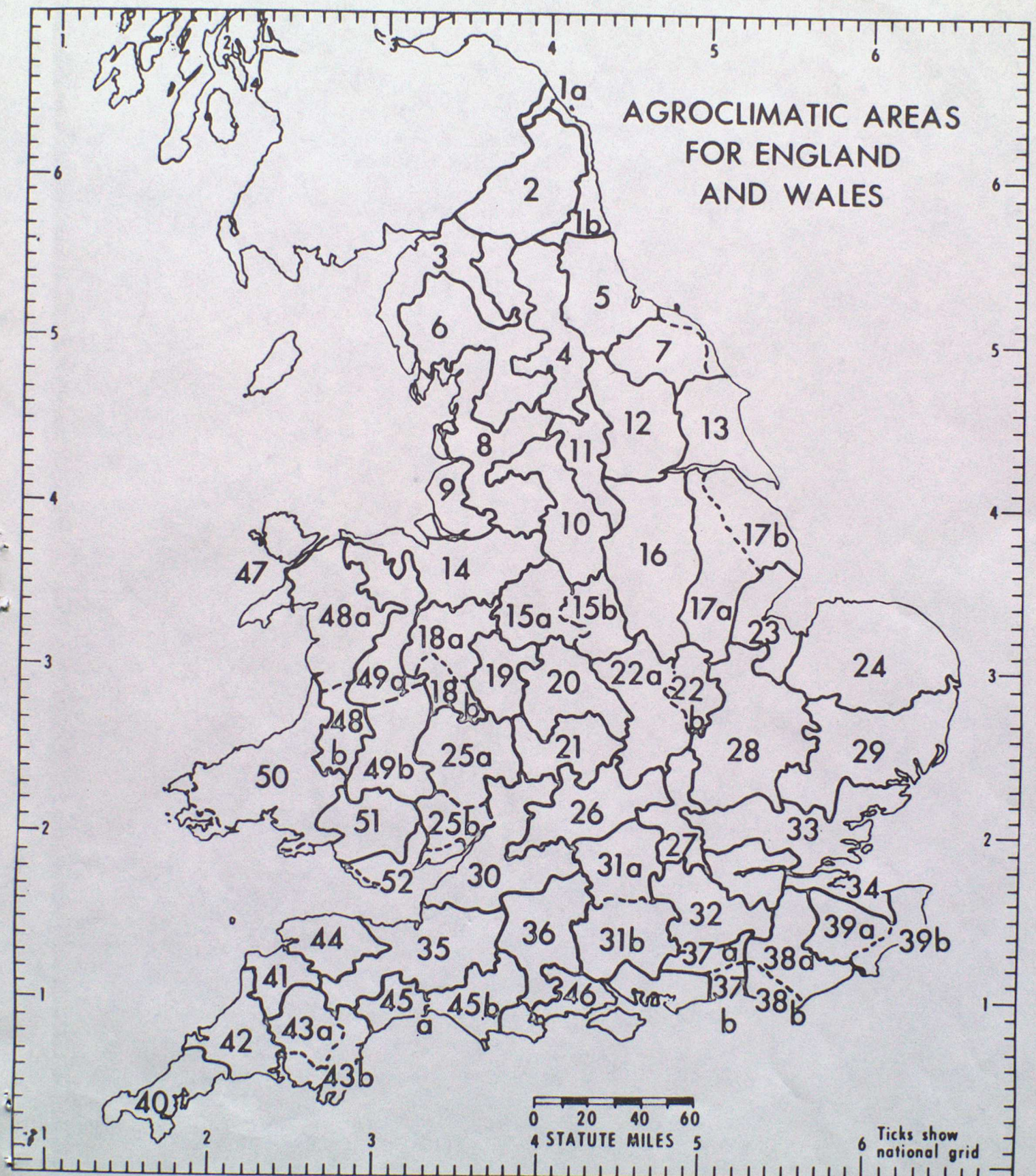
Area		April	May	June	July	Aug	Sep	Total	Average Height
1A North	PT	1.95	2.75	3.15	3.10	2.30	1.55	14.80	
		0.18	0.27	0.32	0.30	0.39	0.19		
	Sun	5.0	5.7	6.1	5.4	4.9	4.3		220
1B South	PT	1.95	2.80	3.20	3.15	2.40	1.60	15.10	
		0.19	0.28	0.32	0.30	0.38	0.20		
	Sun	4.9	5.5	6.0	5.2	4.7	4.1		216
2	PT	1.70	2.70	3.00	2.95	2.15	1.30	13.80	
		0.18	0.27	0.32	0.30	0.39	0.19		
	Sun	4.4	5.3	5.5	4.5	4.2	3.2		702
3	PT	1.85	2.95	3.20	3.15	2.55	1.45	15.15	
		0.16	0.22	0.30	0.25	0.30	0.16		
	Sun	5.5	5.8	6.5	5.2	4.9	3.7		358
5	PT	1.95	2.85	3.25	3.15	2.50	1.60	15.30	
		0.20	0.30	0.33	0.30	0.38	0.20		
	Sun	4.7	5.6	5.9	5.0	4.6	4.2		318
6A West	PT	1.65	2.60	2.85	2.85	2.20	1.20	13.35	
		0.15	0.25	0.32	0.26	0.33	0.18		
	Sun	4.0	5.3	5.4	4.4	4.1	3.3		1118
6B East	PT	1.75	2.70	3.05	3.00	2.35	1.40	14.25	
		0.20	0.32	0.34	0.29	0.39	0.20		
	Sun	4.5	5.4	5.5	4.6	4.3	3.5		1033
7	PT	1.90	2.80	3.15	3.15	2.50	1.55	15.05	
		0.20	0.34	0.34	0.28	0.39	0.20		
	Sun	4.8	5.7	6.1	5.2	4.8	4.2		564
8	PT	2.10	3.15	3.40	3.35	2.80	1.70	16.50	
		0.14	0.32	0.37	0.27	0.40	0.22		
	Sun	5.0	6.0	6.5	5.4	5.1	4.3		380
9	PT	2.25	3.35	3.75	3.60	3.05	1.90	17.90	
		0.15	0.26	0.36	0.27	0.35	0.17		
	Sun	5.5	6.6	6.9	5.8	5.5	4.4		92
10	PT	1.80	2.80	3.20	3.10	2.50	1.40	14.80	
		0.20	0.33	0.35	0.31	0.35	0.23		
	Sun	4.2	5.4	5.7	4.7	4.4	3.5		941
11	PT	2.05	3.10	3.45	3.35	2.75	1.60	16.30	
		0.25	0.35	0.36	0.32	0.39	0.22		
	Sun	4.6	5.6	6.0	5.2	4.6	3.8		453
12	PT	2.10	3.05	3.40	3.40	2.70	1.70	16.35	
		0.24	0.34	0.35	0.30	0.39	0.21		
	Sun	4.7	5.8	6.2	5.3	4.7	4.0		128

Area		April	May	June	July	Aug	Sep	Total	Average Height
13	PT	2.10	3.05	3.40	3.50	2.65	1.80	16.50	
		0.19	0.34	0.34	0.29	0.39	0.21		
	Sun	4.9	5.9	6.3	5.5	5.1	4.3		177
14	PT	2.05	3.15	3.55	3.60	2.90	1.80	17.05	
		0.14	0.33	0.37	0.26	0.36	0.21		
	Sun	5.1	5.9	6.6	5.4	4.9	3.9		213
15A West	PT	2.00	3.00	3.50	3.55	2.70	1.65	16.40	
		0.20	0.30	0.34	0.28	0.39	0.23		
	Sun	4.7	5.6	6.3	5.1	4.8	3.7		554
15B East	PT	2.05	3.10	3.60	3.65	2.80	1.70	16.90	
		0.17	0.32	0.33	0.30	0.39	0.24		
	Sun	4.6	5.7	6.2	5.3	4.8	3.8		341
16	PT	2.25	3.30	3.65	3.65	2.80	1.75	17.40	
		0.21	0.33	0.35	0.32	0.38	0.25		
	Sun	4.8	5.9	6.3	5.4	5.0	4.1		216
17A West	PT	2.25	3.30	3.60	3.70	2.95	1.85	17.65	
		0.15	0.32	0.34	0.30	0.38	0.24		
	Sun	5.3	6.4	6.7	5.8	5.5	4.2		138
17B East	PT	2.15	3.20	3.55	3.55	2.85	1.85	17.15	
		0.15	0.32	0.34	0.30	0.38	0.24		
	Sun	5.2	6.3	6.7	5.8	5.4	4.3		154
18A North	PT	2.15	3.15	3.60	3.60	2.80	1.70	17.00	
		0.17	0.29	0.33	0.25	0.38	0.22		
	Sun	5.1	6.0	6.6	5.5	5.2	4.1		413
18B South	PT	2.10	3.10	3.55	3.50	2.75	1.65	16.65	
		0.19	0.27	0.31	0.26	0.37	0.23		
	Sun	5.0	5.9	6.6	5.4	5.1	4.0		689
19	PT	2.15	3.15	3.65	3.65	2.85	1.70	17.15	
		0.20	0.30	0.34	0.28	0.39	0.23		
	Sun	4.9	5.7	6.5	5.3	4.9	4.1		380
20	PT	2.15	3.10	3.60	3.65	2.85	1.70	17.05	
		0.25	0.28	0.32	0.28	0.38	0.25		
	Sun	4.8	5.7	6.4	5.3	5.0	4.2		397
21	PT	2.20	3.15	3.65	3.70	2.95	1.75	17.40	
		0.23	0.26	0.31	0.27	0.37	0.24		
	Sun	5.1	6.0	6.5	5.7	5.2	4.3		272
22A West	PT	2.15	3.10	3.55	3.55	2.90	1.75	17.00	
		0.23	0.31	0.35	0.32	0.38	0.25		
	Sun	4.9	5.9	6.4	5.5	5.2	4.3		384
22B East	PT	2.20	3.20	3.60	3.65	3.00	1.85	17.50	
		0.23	0.32	0.35	0.33	0.37	0.26		
	Sun	5.0	6.3	6.5	5.7	5.5	4.5		266

Area		April	May	June	July	Aug	Sep	Total	Average Height
23	PT	2.25	3.35	3.65	3.70	3.15	1.95	18.05	
		0.15	0.32	0.34	0.30	0.36	0.24		
	Sun	5.5	6.6	7.0	6.1	5.6	4.7		16
24	PT	2.25	3.35	3.75	3.75	3.05	1.95	18.10	
		0.14	0.32	0.35	0.30	0.37	0.25		
	Sun	5.5	6.7	6.9	6.2	5.6	4.7		108
25A North	PT	2.20	3.15	3.65	3.60	2.75	1.75	17.10	
		0.22	0.22	0.29	0.26	0.36	0.24		
	Sun	5.2	6.0	6.6	5.8	5.3	4.3		384
25B South	PT	2.15	3.20	3.65	3.55	2.85	1.80	17.20	
		0.20	0.22	0.28	0.26	0.30	0.25		
	Sun	5.2	6.1	6.7	5.7	5.4	4.3		344
26	PT	2.15	3.15	3.60	3.60	2.95	1.75	17.20	
		0.19	0.23	0.31	0.25	0.31	0.21		
	Sun	5.4	6.1	6.7	5.9	5.4	4.3		449
27	PT	2.25	3.20	3.60	3.65	3.00	1.85	17.55	
		0.16	0.26	0.32	0.28	0.30	0.22		
	Sun	5.3	6.2	6.8	6.0	5.5	4.4		351
28	PT	2.25	3.25	3.70	3.70	3.00	1.90	17.80	
		0.15	0.28	0.32	0.30	0.32	0.23		
	Sun	5.2	6.4	6.9	6.0	5.6	4.6		184
29	PT	2.25	3.35	3.80	3.80	3.10	1.95	18.25	
		0.14	0.30	0.32	0.32	0.35	0.28		
	Sun	5.6	6.6	7.1	6.2	5.8	4.8		159
30	PT	2.15	3.15	3.65	3.65	2.95	1.80	17.35	
		0.21	0.24	0.31	0.28	0.31	0.21		
	Sun	5.3	6.2	6.8	6.0	5.5	4.3		298
31A North	PT	2.20	3.20	3.65	3.65	3.00	1.85	17.55	
		0.16	0.25	0.32	0.27	0.30	0.22		
	Sun	5.5	6.3	6.8	6.1	5.7	4.5		351
31B South	PT	2.20	3.15	3.70	3.70	2.90	1.85	17.50	
		0.20	0.28	0.30	0.30	0.30	0.20		
	Sun	5.7	6.6	6.9	6.2	5.8	4.8		351
32	PT	2.20	3.15	3.75	3.75	3.05	1.85	17.75	
		0.17	0.29	0.31	0.28	0.30	0.22		
	Sun	5.3	6.2	7.0	6.3	5.9	4.7		269
33	PT	2.25	3.30	3.80	3.80	3.10	2.00	18.25	
		0.15	0.27	0.31	0.28	0.32	0.22		
	Sun	5.4	6.3	7.0	6.3	5.9	4.8		190
34	PT	2.25	3.30	3.90	3.90	3.15	2.00	18.50	
		0.16	0.29	0.30	0.28	0.30	0.23		
	Sun	5.7	6.9	7.5	6.8	6.2	5.0		190
35	PT	2.25	3.20	3.70	3.70	3.00	1.80	17.65	
		0.23	0.27	0.32	0.27	0.30	0.23		
	Sun	5.7	6.4	6.9	6.4	5.9	4.4		328

Area		April	May	June	July	Aug	Sep	Total	Average Height
36	PT	2.05	3.20	3.65	3.70	3.00	1.80	17.40	
		0.19	0.25	0.31	0.28	0.30	0.22		
	Sun	5.6	6.5	6.9	6.1	5.8	4.6		407
37A North	PT	2.20	3.20	3.85	3.80	3.00	1.85	17.90	
		0.21	0.30	0.30	0.28	0.30	0.23		
	Sun	5.7	7.0	7.1	6.7	6.0	4.9		210
37B South	PT	2.25	3.25	3.85	3.90	3.10	1.90	18.15	
		0.21	0.30	0.30	0.28	0.30	0.23		
	Sun	6.1	7.5	8.0	7.2	6.5	5.4		210
38A North	PT	2.15	3.20	3.90	3.85	3.10	1.90	18.10	
		0.18	0.29	0.30	0.28	0.30	0.23		
	Sun	5.5	6.8	7.3	6.8	6.1	4.9		259
38B South	PT	2.25	3.25	3.80	3.80	3.10	1.90	18.10	
		0.21	0.30	0.30	0.28	0.30	0.23		
	Sun	6.1	7.5	8.0	7.2	6.5	5.4		230
39A West	PT	2.20	3.20	3.95	3.85	3.10	1.95	18.25	
		0.16	0.29	0.30	0.28	0.30	0.23		
	Sun	5.6	6.7	7.2	6.6	6.1	5.0		262
39B East	PT	2.30	3.35	4.00	3.95	3.20	2.00	18.80	
		0.16	0.29	0.30	0.28	0.30	0.23		
	Sun	6.0	7.2	7.7	7.0	6.5	5.3		161
40	PT	2.30	3.30	3.65	3.60	3.00	1.90	17.75	
		0.20	0.28	0.31	0.29	0.28	0.24		
	Sun	6.2	7.2	7.4	6.8	6.3	5.0		272
41	PT	2.15	3.10	3.50	3.40	2.85	1.80	16.80	
		0.21	0.27	0.33	0.31	0.30	0.22		
	Sun	5.7	6.5	6.8	6.2	5.7	4.5		423
42	PT	2.15	3.15	3.55	3.50	2.90	1.85	17.10	
		0.20	0.28	0.31	0.29	0.28	0.24		
	Sun	5.8	6.8	7.0	6.4	6.0	4.3		417
43A North W	PT	1.95	2.95	3.30	3.25	2.75	1.65	15.85	
		0.21	0.27	0.33	0.31	0.30	0.22		
	Sun	5.3	6.0	6.5	5.8	5.2	3.9		774
43B South E	PT	2.15	3.20	3.55	3.60	2.95	1.85	17.30	
		0.21	0.27	0.33	0.31	0.30	0.22		
	Sun	5.8	6.8	7.1	6.5	5.8	4.5		266
44	PT	2.00	2.95	3.35	3.30	2.75	1.65	16.00	
		0.22	0.27	0.32	0.29	0.30	0.22		
	Sun	5.6	6.3	6.7	6.1	5.6	4.5		682

Area		April	May	June	July	Aug	Sep	Total	Average Height
45A West	PT	2.20	3.25	3.85	3.80	3.00	1.80	17.90	
		0.22	0.27	0.33	0.30	0.30	0.22		
	Sun	5.9	6.9	7.1	6.8	6.2	4.8		361
45B East	PT	2.20	3.20	3.60	3.65	2.95	1.80	17.40	
		0.22	0.27	0.30	0.31	0.30	0.23		
	Sun	5.8	6.7	7.0	6.5	6.2	4.9		335
46	PT	2.25	3.25	3.85	3.80	3.10	1.85	18.10	
		0.20	0.29	0.30	0.29	0.30	0.22		
	Sun	6.0	7.1	7.4	7.0	6.6	5.2		148
47	PT	2.10	3.25	3.45	3.40	2.80	1.90	16.90	
		0.18	0.18	0.32	0.25	0.27	0.16		
	Sun	5.9	7.1	7.3	6.0	5.9	4.5		200
48A North	PT	1.80	2.85	3.10	3.10	2.55	1.50	14.90	
		0.18	0.20	0.33	0.25	0.25	0.20		
	Sun	4.5	5.3	5.7	4.7	4.5	3.5		981
48B South	PT	1.80	2.85	3.15	3.15	2.55	1.50	15.00	
		0.18	0.20	0.31	0.26	0.24	0.21		
	Sun	4.3	5.5	5.9	5.0	4.8	3.7		1132
49A North	PT	1.90	2.90	3.25	3.30	2.60	1.60	15.55	
		0.17	0.27	0.33	0.26	0.31	0.21		
	Sun	4.8	5.5	6.0	5.0	4.7	3.6		925
49B South	PT	1.85	2.90	3.25	3.20	2.55	1.55	15.30	
		0.17	0.20	0.28	0.24	0.24	0.24		
	Sun	4.9	5.4	6.2	4.8	4.7	3.6		1014
50	PT	2.15	3.15	3.50	3.45	3.00	1.85	17.10	
		0.18	0.22	0.27	0.26	0.25	0.25		
	Sun	5.5	6.5	7.0	5.8	5.5	4.3		403
51	PT	1.90	3.00	3.30	3.20	2.70	1.60	15.70	
		0.18	0.20	0.27	0.25	0.25	0.25		
	Sun	5.1	5.9	6.4	5.5	5.2	4.0		974
52	PT	2.15	3.25	3.55	3.55	2.95	1.80	17.25	
		0.18	0.22	0.26	0.26	0.26	0.27		
	Sun	5.4	6.3	6.8	6.0	5.5	4.4		367
I of Man	PT	2.05	3.25	3.55	3.50	2.85	1.75	16.95	
		0.16	0.17	0.31	0.22	0.28	0.16		
	Sun	5.3	6.7	6.8	6.3	5.5	4.3		
I of Wight	PT	2.40	3.50	4.05	3.95	3.30	2.05	19.25	
		0.20	0.30	0.30	0.30	0.30	0.21		
	Sun	6.6	7.5	8.5	7.6	7.0	5.6		
Scillies	PT	2.55	3.55	3.80	3.80	3.20	2.15	19.05	
		0.20	0.26	0.26	0.28	0.28	0.28		
	Sun	6.3	7.6	7.5	6.7	6.5	5.1		


AGROCLIMATIC AREAS
FOR ENGLAND
AND WALES
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